

G-1200 Series — 3-Roll Expander, "A" Reach

O.D. Range: 1/2" – 1-1/2" (12.7 – 38.1 mm)

- Expanders with 1-1/2" (38.1 mm) long rolls will accommodate tube sheet thicknesses of 1-1/4" to 7-3/4" (31.7 mm to 196.8 mm)
- Expanders with 2-1/4" (51.7 mm) long rolls will accommodate tube sheet thicknesses from 2" to 8-1/2" (50.8 mm to 215.9 mm)
- Reversible Thrust Collar design allows flush and 1/8" recess tube rolling.



NOTE: Step expanding becomes necessary if the tube sheet thickness exceeds the length of the roll. Specify "S" Type rolls for step rolling applications.

Sizes not listed available upon request.

"A" Reach						Tube Sheet Thickness				Min. I.D. Tool Enters		Max. Expan. of Tool		Mandrel Number (Order No.) 3/8 in. Sq. Dr. (9.5 mm)	Recommended Rolling Motors (Order No.)	
Tube O.D.		Tube Gauge		Tube I.D.		1-1/4 in. to 7-3/4 in. (31.7 mm to 196.8 mm)		2 in. to 8-1/2 in. (50.8 mm to 215.9 mm)							Airetool	Electric
in.	mm	bwg	in.	mm	in.	mm	Tool No. (Order No.)	Roll Set No. (Order No.)	Tool No. (Order No.)	Roll Set No. (Order No.)	in.	mm	in.	mm		
1/2	12.7	14	0.083	2.10	0.334	8.48	1197 A (5514943)	797 (5512194)			0.324	8.22	0.374	9.49	1197-A (2165900)	720-550-B (8405391)
		15	0.072	1.82	0.356	9.04	1199 A (5515077)	R-1 (5284800)			0.348	8.83	0.398	10.10	1199 A (2972749)	
		16	0.065	1.65	0.370	9.39	1201 A (5017600)				0.360	9.14	0.410	10.41	M-51-A (2521200)	
		17	0.058	1.47	0.384	9.75	1203 A (5018000)	R-2 (5285000)			0.374	9.49	0.424	10.76		720-1800-B (8405512)-3/8
		18	0.049	1.24	0.402	10.21	1205 A (5018400)	R-3 (5285200)			0.392	9.95	0.447	11.35	M-52-A (2522100)	
		20	0.035	0.88	0.430	10.92	1207 A (5018800)	R-4 (5285400)			0.420	10.66	0.480	12.19	M-53-A (2523000)	
5/8	15.8	12	0.109	2.76	0.407	10.33	1205 A (5018400)	R-3 (5285200)			0.392	9.95	0.447	11.35	M-52-A (2522100)	850-600-A (8405398)
		13	0.095	2.41	0.435	11.04	1207 A (5018800)	R-4 (5285400)			0.420	10.66	0.480	12.19	M-53-A (2523000)	
		14	0.083	2.10	0.459	11.65	1209 A (5019200)		1210 A (5019600)	R-4-A (5285500)	0.449	11.40	0.509	12.92	M-54-A (2523900)	
		15	0.072	1.82	0.481	12.21	1211 A (5020000)	R-5 (5285800)	1212 A (5020400)	R-5-A (5285900)	0.471	11.96	0.536	13.61	M-55-A (2524800)	
		16	0.065	1.65	0.495	12.57	1213 A (5020800)	R-6 (5286200)	1214 A (5021200)	R-6-A (5286300)	0.485	12.31	0.550	13.97		
		17	0.058	1.47	0.509	12.92	1215 A (5021600)		1216 A (5022000)			0.499	12.67	0.564	14.32	M-56-A (2525700)
		18	0.049	1.24	0.527	13.38	1217 A (5022400)	R-7 (5286600)	1218 A (5022800)	R-7-A (5286700)	0.517	13.13	0.582	14.78		
		19	0.042	1.06	0.541	13.74	1219 A (5023200)	R-7 (5286600)	1220 A (5023600)	R-7-A (5286700)	0.531	13.48	0.596	15.13	M-58-A (2527500)	
		20	0.035	0.88	0.555	14.09										
		21	0.032	0.81	0.561	14.24										
22	0.028	0.71	0.569	14.45												

Condenser Expanders

"A" Reach G-1200 Series Heat Exchanger & Condenser Tube Expanders (cont.)

"A" Reach							Tube Sheet Thickness				Min. I.D. Tool Enters		Max. Expan. of Tool		Mandrel Number (Order No.) 3/8 in. Sq. Dr. (9.5 mm)	Recommended Rolling Motors (Order No.)	
Tube O.D.		Tube Gauge		Tube I.D.		1-1/4 in. to 7-3/4 in. (31.7 mm to 196.8 mm)		2 in. to 8-1/2 in. (50.8 mm to 215.9 mm)		in.						mm	in.
in.	mm	bwg	in.	mm	in.	mm	Tool No. (Order No.)	Roll Set No. (Order No.)	Tool No. (Order No.)		Roll Set No. (Order No.)	in.	mm	in.	mm		
3/4	19.0	10	0.134	3.40	0.482	12.24	1211 A (5020000)	R-5 (5285800)	1212 A (5020400)	R-5-A (5285900)	0.471	11.96	0.536	13.61	M-55-A (2524800)	850-600-A (8405398)	979-C-650/ ATC-900
		11	0.120	3.04	0.510	12.95	1215 A (5021600)	R-6 (5286200)	1216 A (5022000)	R-6-A (5286300)	0.499	12.67	0.564	14.32	M-56-A (2525700)		
		12	0.109	2.76	0.532	13.51	1217 A (5022400)	R-7 (5286600)	1218 A (5022800)	R-7-A (5286700)	0.517	13.13	0.582	14.78	M-58-A (2527500)		
		13	0.095	2.41	0.560	14.22	1221 A (5024000)	R-8 (5287000)	1222 A (5024400)	R-8-A (5287100)	0.550	13.97	0.615	15.62			
		14	0.083	2.10	0.584	14.83	1223 A (5024800)	R-9 (5287400)	1224 A (5025200)	R-9-A (5287500)	0.574	14.57	0.639	16.23			
		15	0.072	1.82	0.606	15.39	1225 A (5025600)	R-10 (5287800)	1226 A (5026000)	R-10-A (5287900)	0.596	15.13	0.661	16.78			
		16	0.065	1.65	0.620	15.74	1227 A (5026400)		1228 A (5026801)		0.605	15.36	0.685	17.39			
		17	0.058	1.47	0.634	16.10	1229 A (5027100)	R-11 (5288200)	1230 A (5027600)	R-11-A (5288300)	0.619	15.72	0.699	17.75	M-59-A (2528400)	850-1250-A (8405399)	
		18	0.049	1.24	0.652	16.56											
		19	0.042	1.06	0.666	16.91	1231 A (5028000)	R-12 (5288600)	1232 A (5028400)	R-12-A (5288700)	0.642	16.30	0.722	18.33			
		20	0.035	0.88	0.680	17.27											
		21	0.032	0.81	0.686	17.42											
22	0.028	0.71	0.694	17.62													
7/8	22.2	10	0.134	3.40	0.607	15.41	1225 A (5025600)	R-10 (5287800)	1226 A (5026000)	R-10-A (5287900)	0.596	15.13	0.661	16.78	M-58-A (2527500)	850-600-A (8405398)	979-C-650/ ATC-900
		11	0.120	3.04	0.635	16.12	1229 A (5027200)	R-11 (5288200)	1230 A (5027600)	R-11-A (5288300)	0.619	15.72	0.699	17.75	M-59-A (2528400)		
		12	0.109	2.76	0.657	16.68	1231 A (5028000)	R-12 (5288600)	1232 A (5028400)	R-12-A (5288700)	0.642	16.30	0.722	18.33			
		13	0.095	2.41	0.685	17.39	1233 A (5028800)	R-13 (5289000)	1234 A (5029200)	R-13-A (5289100)	0.670	17.01	0.750	19.05	M-60-A (2529300)		
		14	0.083	2.10	0.709	18.00	1235 A (5029600)	R-14 (5289400)	1236 A (5030000)	R-14-A (5289500)	0.685	17.39	0.774	19.65	M-61-A (2530200)		
		15	0.072	1.82	0.731	18.56	1237 A (5030400)	R-15 (5289800)	1238 A (5030800)	R-15-A (5289900)	0.712	18.08	0.801	20.34			
		16	0.065	1.65	0.745	18.92	1239 A (5031200)		1240 A (5031600)		0.726	18.44	0.815	20.70	M-62-A (2531100)		
		17	0.058	1.47	0.759	19.27	1243 A (5032800)	R-16 (5290200)	1244 A (5033200)	R-16-A (5290300)	0.740	18.79	0.829	21.05		850-1250-A (8405399)	
18	0.049	1.24	0.777	19.73													
1	25.4	8	0.165	4.19	0.670	17.01	1241 A (5032000)	R-13 (5289000)	1242 A (5032400)	R-13-A (5289100)	0.665	16.89	0.735	18.66	M-59-A (2528400)	1050-400 (8404200)	979-C-300/ ATC-900
		9	0.148	3.75	0.704	17.88	1235 A (5029600)	R-14 (5289400)	1236 A (5030000)	R-14-A (5289500)	0.685	17.39	0.774	19.65	M-61-A (2530200)		
		10	0.134	3.40	0.732	18.59	1237 A (5030400)	R-15 (5289800)	1238 A (5030800)	R-15-A (5289900)	0.712	18.08	0.801	20.34			
		11	0.120	3.04	0.760	19.30	1243 A (5032800)	R-16 (5290200)	1244 A (5033200)	R-16-A (5290300)	0.740	18.79	0.829	21.05	M-62-A (2531100)		
		12	0.109	2.76	0.782	19.86	1245 A (5033600)	R-17 (5290600)	1246 A (5034000)	R-17-A (5290700)	0.763	19.38	0.852	21.64			
		13	0.095	2.41	0.810	20.57	1247 A (5034400)	R-18 (5291000)	1248 A (5034800)	R-18-A (5291100)	0.791	20.09	0.880	22.35		850-600-A (8405398)	

Condenser Expanders

"A" Reach G-1200 Series Heat Exchanger & Condenser Tube Expanders (cont.)



Tube O.D.		"A" Reach				Tube Sheet Thickness				Min. I.D. Tool Enters		Max. Expan. of Tool		Mandrel Number (Order No.) 3/8 in. Sq. Dr. (9.5 mm)	Recommended Rolling Motors (Order No.)				
		Tube Gauge		Tube I.D.		1-1/4 in. to 7-3/4 in. (31.7 mm to 196.8 mm)		2 in. to 8-1/2 in. (50.8 mm to 215.9 mm)							Airetool	Electric			
in.	mm	bwg	in.	mm	in.	mm	Tool No. (Order No.)	Roll Set No. (Order No.)	Tool No. (Order No.)	Roll Set No. (Order No.)	in.	mm	in.	mm					
1	25.4	14	0.083	2.10	0.834	21.18	1249 A (5035200)	R-18 (5291000)	1250 A (5035600)	R-18-A (5291100)	0.810	20.57	0.909	23.08	M-63-A (2532000)	850-600-A (8405398)	979-C-300/ ATC-900		
		15	0.072	1.82	0.856	21.74	1251 A (5036000)	R-19 (5291400)	1252 A (5036400)	R-19-A (5291500)	0.837	21.25	0.936	23.77					
		16	0.065	1.65	0.870	22.09													
				17	0.058	1.47	0.884	22.45	1255 A (5037600)	R-21 (5292200)	1256 A (5038000)	R-21-A (5292300)	0.865	21.97	0.964	24.48	M-63-A (2532000)	850-1250-A (8405399)	979-C-650/ ATC-900
				18	0.049	1.24	0.902	22.91											
				19	0.042	1.06	0.916	23.26											
				20	0.035	0.88	0.930	23.62											
1-1/8	28.5	8	0.165	4.19	0.795	20.19	1253 A (5036800)	R-20 (5291800)	1254 A (5037200)	R-20-A (5291900)	0.776	19.71	0.875	22.22	M-63-A (2532000)	1050-400 (8404200)	979-C-300/ ATC-900		
		9	0.148	3.75	0.829	21.05	1249 A (5035200)	R-18 (5291000)	1250 A (5035600)	R-18-A (5291100)	0.810	20.57	0.909	23.08					
		10	0.134	3.40	0.857	21.76	1251 A (5036000)	R-19 (5291400)	1252 A (5036400)	R-19-A (5291500)	0.837	21.25	0.936	23.77					
		11	0.120	3.04	0.885	22.47	1255 A (5037600)	R-21 (5292200)	1256 A (5038000)	R-21-A (5292300)	0.865	21.97	0.964	24.48					
		12	0.109	2.76	0.907	23.03	1257 A (5038300)		1258 A (5038800)		0.883	22.42	0.982	24.94	M-64-A (2532900PT) *				
				13	0.095	2.41	0.935	23.74	1259 A (5039200)	R-22 (5292600)	1260 A (5039600)	R-22-A (5292700)	0.916	23.26	1.015	25.78	M-65-A (2533800) *	979-C-650/ ATC-900	
				14	0.083	2.10	0.959	24.35	1261 A (5040000)	R-23 (5293000)	1262 A (5040400)	R-23-A (5293100)	0.935	23.74	1.044	26.51			
				15	0.072	1.82	0.981	24.91	1263 A (5040800)	R-24 (5293400)	1264 A (5041200)	R-24-A (5293500)	0.962	24.43	1.071	27.20			
				16	0.065	1.65	0.995	25.27											
				17	0.058	1.47	1.009	25.62	1267 A (5042400)	R-26 (5294200)	1268 A (5042800)	R-26-A (5294300)	0.990	25.14	1.099	27.91	M-66-A (2534700) *		
		18	0.049	1.24	1.028	26.11													
1-1/4	31.7	8	0.165	4.19	0.920	23.36	1265 A (5041600)	R-25 (5293800)	1266 A (5042000)	R-25-A (5293900)	0.901	22.88	1.010	25.65	M-65-A (2533800) *	1550-250 (8404280)	979-C-300/ ATC-900		
		9	0.148	3.75	0.954	24.23	1261 A (5040000)	R-23 (5293000)	1262 A (5040400)	R-23-A (5293100)	0.935	23.74	1.044	26.51					
		10	0.134	3.40	0.982	24.94	1263 A (5040800)	R-24 (5293400)	1264 A (5041200)	R-24-A (5293500)	0.962	24.43	1.071	27.20					
				11	0.120	3.04	1.010	25.65	1267 A (5042400)	R-26 (5294200)	1268 A (5042800)	R-26-A (5294300)	0.990	25.14	1.099	27.91	M-66-A (2534700) *		
				12	0.109	2.76	1.032	26.21	1269 A (5043200)	R-27 (5294600)	1270 A (5043600)	R-27-A (5294700)	1.013	25.73	1.122	28.49			
				13	0.095	2.41	1.060	26.92	1271 A (5044000)	R-28 (5295000)	1272 A (5044400)	R-28-A (5295100)	1.041	26.44	1.150	29.21	M-67-A (2535600) *		
				14	0.083	2.10	1.084	27.53	1273 A (5044800)	R-29 (5295400)	1274 A (5045200)	R-29-A (5295500)	1.060	26.92	1.169	29.69			
				15	0.072	1.82	1.106	28.09	1275 A (5045600)	R-30 (5295800)	1276 A (5046000)	R-30-A (5295900)	1.087	27.60	1.196	30.37	1050-400 (8404200)	979-C-650/ ATC-900	
				16	0.065	1.65	1.120	28.44											
				17	0.058	1.47	1.134	28.80	1279 A (5047200)		1280 A (5047600)		1.115	28.32	1.224	31.08	M-68-A (2536500) *		
		18	0.049	1.24	1.152	29.26													

* 1/2" Sq. Dr. (12.7 mm)

Condenser Expanders

"A" Reach G-1200 Series Heat Exchanger & Condenser Tube Expanders (cont.)

"A" Reach							Tube Sheet Thickness				Min. I.D. Tool Enters		Max. Expan. of Tool		Mandrel Number (Order No.) 1/2 in. Sq. Dr. (12.7 mm)	Recommended Rolling Motors (Order No.)	
Tube O.D.		Tube Gauge		Tube I.D.		1-1/4 in. to 7-3/4 in. (31.7 mm to 196.8 mm)		2 in. to 8-1/2 in. (50.8 mm to 215.9 mm)		in.						mm	in.
in.	mm	bwg	in.	mm	in.	mm	Tool No. (Order No.)	Roll Set No. (Order No.)	Tool No. (Order No.)		Roll Set No. (Order No.)						
1-3/8	34.9	8	0.165	4.19	1.045	26.54	1277 A (5046400)	R-31 (5296200)	1278 A (5046800)	R-31-A (5295900)	1.026	26.04	1.135	28.82	M-67-A (2535600)	1550-250 (8404280)	979-C-210/ ATC-900
		9	0.148	3.75	1.079	27.40	1273 A (5044800)	R-29 (5295400)	1274 A (5045200)	R-29-A (5295500)	1.060	26.92	1.169	29.69			
		10	0.134	3.40	1.107	28.11	1275 A (5045600)	R-30 (5295800)	1276 A (5046000)	R-30-A (5295900)	1.087	27.60	1.196	30.37	M-68-A (2536500)	1550-250 (8404280)	979-C-300/ ATC-900
		11	0.120	3.04	1.135	28.82	1279 A (5047200)		1280 A (5047600)		1.115	28.32	1.224	31.08			
		12	0.109	2.76	1.157	29.38	1281 A (5048000)	R-32 (5295800)	1282 A (5048400)	R-32-A (5296700)	1.133	28.77	1.242	31.54	M-70-A (2538300)	1550-900 (8404290)	979-C-300/ ATC-900
		13	0.095	2.41	1.185	30.09	1283 A (5048800)	R-32 (5295800)	1284 A (5049200)	R-32-A (5296700)	1.160	29.46	1.275	32.38			
		14	0.083	2.10	1.209	30.70	1285 A (5049600)	R-34 (5297400)	1286 A (5050000)	R-34-A (5297500)	1.179	29.94	1.294	32.86			
		15	0.072	1.82	1.231	31.26	1287 A (5050400)	R-35 (5297800)	1288 (5050700)	R-35-A (5297900)	1.206	30.63	1.321	33.55			
16	0.065	1.65	1.245	31.62													
1-1/2	38.1	8	0.165	4.19	1.170	29.71	1289 A (5051200)	R-34 (5297400)	1290 A (5051600)	R-34-A (5297500)	1.145	29.08	1.260	32.00	M-69-A (2537300)	1550-250 (8404280)	979-C-210/ ATC-900
		9	0.148	3.75	1.204	30.58	1285 A (5049600)	R-34 (5297400)	1286 A (5050000)	R-34-A (5297500)	1.179	29.94	1.294	32.86	M-70-A (2538300)		
		10	0.134	3.40	1.232	31.29	1287 A (5050400)	R-35 (5297800)	1288 A (5050800)	R-35-A (5297900)	1.206	30.63	1.321	33.55		M-70-A (2538300)	
		11	0.120	3.04	1.260	32.00	1291 A (5052000)	R-36 (5298200)	1292 A (5052400)	R-36-A (5298300)	1.235	31.36	1.350	34.29	M-70-A (2538300)		
		12	0.109	2.76	1.282	32.56	1293 A (5052800)	R-37 (5298600)	1294 A (5053200)	R-37-A (5298700)	1.257	31.92	1.372	34.84		M-70-A (2538300)	
		13	0.095	2.41	1.310	33.27	1295 A (5053600)	R-37 (5298600)	1296 A (5054000)	R-37-A (5298700)	1.285	32.63	1.400	35.56	M-71-A (2539200)		
		14	0.083	2.10	1.334	33.88					1.331	33.80	1.446	36.72		M-71-A (2539200)	
		15	0.072	1.82	1.356	34.44	1297 A (5054400)	R-38 (5299000)	1298 A (5054800)	R-38-A (5299100)	1.331	33.80	1.446	36.72	M-71-A (2539200)		
		16	0.065	1.65	1.370	34.79					1.331	33.80	1.446	36.72		M-71-A (2539200)	
		17	0.058	1.47	1.384	35.15					1.331	33.80	1.446	36.72	M-71-A (2539200)		
		18	0.049	1.24	1.402	35.61	1299 A (5515074)	R-38 (5299000)	1300 A (5515089)	R-38-A (5299100)	1.331	33.80	1.472	37.38		M-72-A (2980795)	
		19	0.042	1.06	1.416	35.96					1.331	33.80	1.472	37.38	M-72-A (2980795)		
20	0.035	0.88	1.430	36.32					1.331	33.80	1.472	37.38	M-72-A (2980795)				